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# Leisure Time Activities, Parental Monitoring and Drunkenness in Adolescents

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## Key Words

Leisure time • Adolescents • Alcohol • Parental monitoring

## Abstract

**Background:** The aim of this cross-sectional study was to explore the association between adolescent drunkenness and participation in risky leisure time activities and parental monitoring. **Methods:** A sample of 3,694 Slovak elementary school students (mean age 14.5 years; 49.0% males) was assessed for drunkenness in the previous month, participation in risky leisure activities and parental monitoring. **Results:** Participation in risky leisure time activities increased the probability of drunkenness among adolescents, while parental monitoring decreased it. The effect did not change after adding the mother's and father's monitoring into the models. **Conclusion:** Our results imply that adolescents involved in going out with friends, having parties with friends and/or visiting sporting events every day or several times a week are at a higher risk of drunkenness, as are those less monitored by their parents. These less monitored adolescents and their parents should become a target group in prevention.

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## Introduction

According to the most recent Health Behaviour in School-Aged Children study [1], Slovak children start drinking alcohol at a relatively early age; 9% of girls and 14% of boys at age 11 reported drinking alcohol at least once a week, and this proportion increases with age. The age of the first experience with drunkenness is also relatively low; at 15 years, 31% of girls and 39% of boys have already experienced being drunk. This can be expected to have rather severe consequences for public health.

The family environment, being the most important developmental context, has a large influence on the harmful effects of drinking alcohol, including drunkenness, an influence even larger than a wide range of other social factors. That is, the family environment and positive parenting practices can lead to both a direct and indirect reduction of adolescent alcohol use [2]. Even if an adolescent is exposed to risk factors outside the family (e.g. peer influences, going out with friends), positive relationships within the family and adequate parental control can act as protective factors [2]. Family interactions, processes and parenting have been found to be associated with diverse aspects of adolescent behaviour [2, 3]. Pre-

sumably, adolescents who are emotionally detached from their parents are at risk for a variety of deviant behaviours, including alcohol use [4], and the provision of warmth and support by parents is associated with less adolescent alcohol use [5].

Parental monitoring is one of the processes through which the family facilitates the adjustment of adolescents, by providing them with necessary supervision and guidance [6]. It is conceptualised as the parents' knowledge of their child's whereabouts, activities and friends [7]. Adolescence is a specific period in terms of parental monitoring for two reasons. First, the monitoring is less about direct observation and more about communication between parents and the adolescent (e.g. about their whereabouts, peers, schedule to return home) when compared to earlier years [8]. Second, adolescents' need for autonomy and independence increases, and they spend more time outside their parental home when compared to the previous years [9]. Therefore, leisure time activities outside the home are the most critical domains for parental monitoring.

In adolescence, social activities are the most pursued leisure time activities and are also the most important from a developmental perspective [10, 11]. Besides the undeniable positive role of these activities, they also bring along certain risks, because they often involve the adolescent in behaviours that might be developmentally maladaptive (e.g. alcohol drinking) [10]. Several studies have shown that parental monitoring is associated with less adolescent involvement with alcohol [12–14]. Monitoring has been shown to have both a direct and indirect (through affecting associations with peers who drink) impact on adolescent behaviour regarding alcohol use [15]. For that reason, we investigated only those types of leisure time activities in our analyses that can be expected to increase the risks of drunkenness in order to be able to assess the subsequent role of parental monitoring.

The aim of our study was to explore the associations between adolescent drunkenness and participation in risky leisure time activities and parental monitoring. We hypothesised that participation in risky leisure activities is associated with a higher probability of being drunk, but that parental monitoring protects against this.

## Methods

### *Sample and Procedure*

Our study sample consisted of 3,694 elementary school students from the 8th and 9th grades from three cities in Slovakia, namely Bratislava (600,000 inhabitants, western Slovakia), Zilina (156,000 inhabitants, northern Slovakia) and Kosice (240,000 in-

habitants, eastern Slovakia), as well as several smaller towns in the Kosice region (10,000–40,000 inhabitants). The schools and classes in each region were selected randomly from a database of schools from the Slovak Institute of School Information and Prognosis (81 schools in total, 2 classes per school, average of 23 students per class). We asked the directors of the selected schools to participate, and after their approval and the approval of parents, data were collected. The age range was from 13 to 16 years, with a mean age of 14.5 years ( $\pm 0.5$ ), which is in line with the fact that most children in the Slovak school system leave elementary school at the age of 15. The sample was stratified by gender (49.0% males, 51.0% females), and the representation of the regions was as follows: 24.6% of the participants lived in Bratislava, 21.3% in Zilina, 32.1% in Kosice and 22.0% in several smaller towns in the Kosice region. Data were collected in autumn 2006 by a team of trained researchers and their assistants. Schools and classes were selected randomly in every mentioned region or city. We asked school directors to participate, and after their approval and approval from parents (passive consent), we performed the data collection. Respondents filled in the questionnaire during two regular school lessons (45 min each) on a voluntary and anonymous basis, without the presence of the teacher. The questionnaire was piloted before use on respondents who fulfilled the requirements for our research sample (appropriate age group) but who were not included in the subsequent study.

### *Measures*

Drunkenness in the last 4 weeks as an indicator of excessive drinking was assessed based on the self-evaluation of respondents. They were asked whether they had been drunk during the last 4 weeks, with the following possible responses: no, 1 or 2 times, or 3 or more times. Before analysis, we dichotomised this question into no/yes (at least 1 time).

To measure leisure activities outside the home, respondents were asked to answer how often they devote themselves to 11 different leisure time activities, with the following possible answers: every day, several times a week, several times a month or never. For the purpose of this study, we chose three activities with the greatest expected risk concerning excessive drinking: going out with friends (e.g. to bars, pubs), having parties with friends and visiting sport matches. The answers were then dichotomised as follows: (1) every day + several times a week, and (2) several times a month + never.

Parental monitoring was measured using the Adolescent Family Process Measure [16], which is a 25-item self-reported questionnaire assessing 6 dimensions of family processes (closeness, support, monitoring, communication, conflict and approval) for both the mother and father, respectively. For the purposes of this study, we used only the parental monitoring dimension saturated by 4 items (mother's and father's, respectively). A 5-point Likert-type format was used, ranging from strongly disagree (1) to strongly agree (5). Scores range from 4 to 20, with higher scores indicating a higher level of monitoring from each parent. Cronbach's alpha was 0.73 for mother's monitoring and 0.78 for father's monitoring.

### *Statistical Procedure and Analysis*

We first assessed the characteristics of the sample. Next, we performed a binary logistic regression to analyse the association between adolescent drunkenness in the previous month and partici-

pation in at least one of the three risky activities (daily or several times a week) and parental monitoring, leading to odds ratios with associated 95% confidence intervals. Two models were constructed and adjusted for age and gender. In the first model, we analysed the effect of participation in risky activities as an independent variable. In the second model, we added father's monitoring and mother's monitoring. We checked possible interactions by gender, but these were not statistically significant, so we decided to calculate the models adjusted for age and gender. Because the data were collected within entire school classes, a clustering of students' outcomes per class might affect our findings. To account for such clustering, we performed logistic regression analysis using MLwiN 2.02. The other analyses were performed using SPSS, version 16.

## Results

A description of the studied variables can be found in table 1.

Table 2 shows the results of multilevel binary logistic regression analysis for the effect of participation in risky activities and parental monitoring on drunkenness in the previous month among adolescents. Participation in risky activities increased the probability of drunkenness among adolescents (model 1). In the second model, we added father's monitoring and mother's monitoring. The effect of participation in risky activities remained significant, and mother's monitoring was found to have a significant effect; a low level of maternal monitoring increased the probability of drunkenness among adolescents. The effect of age was significant in both models, while the effect of gender was not significant in any of the models. In general, the multilevel analyses showed some clustering of students' outcomes per class. However, this clustering barely affected the associations, with a slight decrease in the estimates concerned.

From a theoretical perspective, socioeconomic status could be relevant. We adjusted the analyses for socioeconomic status using the Family Affluence Scale as an indicator of socioeconomic status [1]. This led to similar results and did not have an effect on the estimates of the protective effect of parental monitoring. Repeating the logistic regression analyses using the cutoff never/at least once led to a somewhat higher odds ratio without affecting any of the further findings.

## Discussion

The current study explored the association between adolescent drunkenness, participation in leisure time activities and parental monitoring. We found that partici-

**Table 1.** Frequencies of the study variables

	Males (n = 1,765)		Females (n = 1,834)	
	n	%	n	%
Drunkenness in last 4 weeks				
Yes	324	19.3	308	17.2
No	1,353	80.7	1,479	82.8
Leisure activity outside home				
Every day + several times a week	890	53.4	672	37.6
Several times a month + never	776	46.6	1,115	62.4
	mean	SD	mean	SD
Father's monitoring	11.7	4.0	12.1	4.1
Mother's monitoring	12.9	3.8	14.2	3.5

**Table 2.** Multilevel binary logistic regression estimates for the effect of participation in risky activities and parental monitoring on drunkenness in the last 4 weeks

	Odds ratio for drunkenness in the last 4 weeks	
	model 1	model 2
Gender		
Female	1 (Ref.)	1 (Ref.)
Male	0.90 (0.72–1.11)	0.80 (0.65–1.00)
Age	1.68 (1.41–2.01)*	1.72 (1.40–2.12)*
Participation in risky activity		
No	1 (Ref.)	1 (Ref.)
Yes	3.06 (2.47–3.81)*	3.06 (2.46–3.81)*
Monitoring by father		1.00 (0.96–1.03)
Monitoring by mother		0.92 (0.89–0.95)*
ICC (SE)	0.193 (0.08)	0.180 (0.08)

Values in parentheses represent 95% confidence intervals, except where indicated otherwise. \*  $p < 0.001$ . Ref. = Reference category; ICC = intraclass correlation.

pation in risky leisure time activities increased the probability of adolescent drunkenness in the previous month. That is, adolescents who reported participating in at least one of three risky leisure activities (going out with friends, having parties, going to sport matches) were more likely to report having recently got drunk.

This effect remained even after adding father's and mother's monitoring into the models. All three leisure time activities explored are quite common for adolescents

of this age; almost half of our sample reported having participated in at least one of the three risky activities daily or several times a week. Furthermore, these activities involve contacts and relationships with peers, which are an essential part of development at this age [11]. Unfortunately, these relationships take place mostly in places where alcohol is sold, so maintaining a social network in adolescence is strongly connected with places or situations in which alcohol is easily obtained.

Secondly, mother's monitoring was found to have an effect on adolescent drunkenness in the previous month; adolescents who are less monitored by their mothers are more likely to report having recently been drunk. This is partly in line with other researchers who found that the less an adolescent has been monitored by his/her parents the more likely he/she is to be involved with alcohol [12–14]. Through adequate monitoring, parents become aware of situations or peers that may lead to exposure to alcohol, and such knowledge enables them to divert their children from potentially risky situations and friends [17].

The fact that mother's monitoring is a stronger protective factor than father's monitoring might have several explanations. One explanation is that a mother is usually the person to whom adolescents turn with their daily problems, while a father is rather the person to talk about more serious decisions and the future. This seems to hold true at least for Slovakia [18]; whether it holds for other countries as well requires additional study. This, together with the fact that fathers tend to be home with the family less often than mothers, might imply that it is more up to the mother to acquire daily information about the whereabouts of an adolescent to enable her to monitor properly. Some studies have identified these gender differences in a variety of parenting behaviours and attitudes [19]. Mothers usually know more about their adolescent children's lives; they spend more time with them in joint activities and they converse more about personal topics [20–22]. Furthermore, mothers receive information about their children in a more direct way, whereas fathers receive it mostly indirectly from their wives [22].

To have social contacts via the studied leisure time activities is healthy for adolescents. Moreover, despite the fact that these activities are often connected with places where alcohol is sold, as we can see from our findings, they are not risky themselves, and parents are able to help prevent unwanted side effects. Unsupervised time spent with peers becomes problematic either when peers themselves are involved in alcohol or when the parent-adolescent relationship, including monitoring, is poor [23, 24].

This means that although family becomes a less significant factor in adolescence compared to previous years, parents can still protect their adolescent children by, inter alia, monitoring their whereabouts, activities and friends. This protective effect of parents' knowledge of adolescents' activities has been found in a number of studies [12–14, 25, 26].

#### *Strengths and Limitations*

The present study has several strengths and limitations. The first strength is the size of the study sample and its representativeness for the regions of Slovakia. Selection bias was unlikely due to the way the sample was drawn, and the response rate (93%) was satisfactory. A main limitation of our study is that it relied on the self-report of respondents. The question about drunkenness in particular might be influenced by self-reporting. However, the same question was used in the international study Health Behaviour in School-Aged Children, leading to very similar results [27]. In addition, the questionnaires were filled out anonymously, which has been shown to lead to rather valid self-reports [28]. Moreover, adolescents from small towns and rural areas were somewhat underrepresented in our sample. However, prevalence rates of drunkenness were similar among the adolescents concerned and the remainder of our sample, which makes it rather unlikely that this factor would affect our findings. Since the design of this study was cross-sectional, no conclusions could be drawn about causal pathways.

#### *Implications*

Our findings show the importance of parental monitoring to prevent unwanted side effects of social leisure time activities among adolescents. In contemporary society, where the rates of excessive drinking in the European Union are increasing, this issue requires research attention. Our results imply that adolescents involved in going out with friends (e.g. to bars, pubs), having parties with friends and/or visiting sporting events every day or several times a week are at a higher risk of drunkenness, as are those less monitored by their parents. These less monitored adolescents and their parents should thus become a particular target group for prevention. One prevention strategy might be to support safe, alcohol-free environments for these peer interactions on the one hand and to limit the availability of alcoholic drinks in environments that are frequented by young adolescents (e.g. to increase the age limit for selling alcohol to adolescents in public places) on the other. Prevention strategies should not only



focus on trying to change the environment in which peer interactions are happening but also on supporting the undertaking of other leisure activities that are not so closely connected with drinking alcohol.

The implication for further research might be to examine longitudinal data to confirm the causal mechanisms with regard to hazardous drinking. Also, parental communication as a relevant aspect of parenting might modify the effect of parental monitoring. This potential modification deserves additional research. Last but not least, it is important to mention the poten-

tial influence of other factors like school success or experience of violence or abuse. Their effects require additional research.

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